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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/718,239

11/20/2003

Prabodh P. Parekh

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02/07/2007

INTERNATIONAL FLAVORS & FRAGRANCES INC.

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NEW YORK, NY 10019

EXAMINER

MOSS, KERI A

ART UNIT

PAPER NUMBER

1743

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/718,239

Applicant(s)

PAREKH ET AL.

Examiner

Keri A. Moss

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1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13, 14 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 14 and 17-21 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/10/04; 4/11/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Claims 13-14 and 17-21 in the reply filed on 11/17/06 is acknowledged.

Claim Objections

2. Claim **13** is objected to because of the following informalities: On line 8 of claim 13, it appears applicant left out a semicolon after the word "component". Examiner assumes that applicant did not intend to claim the polymeric silicone phospholipid in subclaim (b). For clarity, Examiner recommends starting a new line after each claimed component, i.e. after each comma. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims **13-14 and 17-21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear based on both the claim language and the specification whether the "polymeric silicone phospholipid" in claims 13 and 19 and the "silicone polymer" in claims 17 and 20 represent the same thing. If so, please maintain consistency of

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terminology in the claims. If not, please differentiate the roles of each within the context of the invention.

Regarding claims 18 and 21, it is unclear which nouns match which verbs. For example, does "having a molecular weight of from about 50,000..." modify only "hydroxypropyl cellulose" or "attapulgitic clay, xanthan gum and hydroxypropyl cellulose"? Based on the sentence structure, examiner interprets that each verb modifies only the noun immediately preceding it.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et. al. (USP 4,917,920) in view of O'Lenick, Jr. et al (USP 5,237,035). Ono discloses a slurry comprising an aqueous base (column 8 lines 1-13), a microcapsule suspended in the base consisting essentially of a melamine-formaldehyde polymeric shell (column 6 lines 1-11). Enclosed within the shell is a fragrance composition (column 1 lines 11-16) which may be composed of fragrances which have a $C \log_{10}P$ between 2.5 and 8, such as geraniol or limonene (column 6 lines 23-37).

While Ono teaches using the disclosed invention on clothes, Ono does not teach that the fragrance of the invention lasts after washing. Ono does not expressly disclose using a polymeric silicone phospholipid in contact with the microcapsule. O'Lenick teaches a polymer, silicone phospholipids, that forms a film on fibers. The film remains after washing (paragraph bridging columns 2 and 3). These silicone phospholipid polymers are formed by the phosphorylation reaction of a terminal dimethicone copolyol with a phosphating agent followed by neutralization of the phosphate with base followed by a condensation reaction with an epihalohydrin followed by conducting a n-alkylation reaction with an amine (columns 5-6). These silicone phospholipid polymers produce non-occlusive films on fiber, have a high degree of oxidative stability even at elevated

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temperatures and are nonirritating to the skin and eyes. In addition, the compounds are non volatile. It would have been obvious for one with ordinary skill in the art to modify the Ono slurry by adding silicone phospholipid polymers in order to give the slurry qualities enabling it to remain on fiber after washing and to gain the additional advantages of oxidative stability, non-volatility and lack of irritation to skin and eyes.

9. Claims **13-14, 17 and 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jahns et al. (USP 951,836) in view of O'Lenick, Jr. et al (USP 5,237,035). Jahns discloses a slurry comprising an aqueous base (column 11 lines 62-column 12 line 20), a microcapsule suspended in the base consisting essentially of a melamine-formaldehyde polymeric shell (column 2 lines 10-11). Enclosed within the shell is a fragrance composition (column 3 lines 17-18) which may be composed of fragrances which have a $C \log_{10}P$ between 2.5 and 8, such as benzyl salicylate, cedrol or cyclopentadecanolide (column 2 line 34-column 3 line 16). The aqueous base may consist of between 80 to 93 parts by weight of water (column 11 line 63-column 12 line 20), ethanol (column 14 lines 1-11), 0.5 to 50% by weight of non-ionic surfactant (column 9 lines 8-30) and preservative (column 14 lines 17-23). The non-ionic surfactant may be a mixture of the hydroxy-octaethoxy ethers of n-nonanol and n-undecanol (column 9 lines 8-30). Admixed with the aqueous base may be additional fragrances (column 14 lines 18-23).

Jahns does not expressly teach using a suspending agent in the slurry, but Jahns teaches that compounds such as xanthan gum form a stable oil-in-water

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emulsion (column 5 lines 11-33). The benefit of a suspending agent such as xanthan gum is that its emulsifying properties prevent the microcapsules from collecting in one layer in the slurry. It would have been obvious for one of ordinary skill in the art to modify the slurry of Jahns by adding a suspending agent such as xanthan gum in order to keep the microcapsules dispersed throughout the slurry.

While Jahns teaches using the disclosed invention on clothes, Jahns does not expressly disclose using a polymeric silicone phospholipid in contact with the microcapsule. O'Lenick teaches a polymer, silicone phospholipids, that forms a film on fibers. The film remains after washing (paragraph bridging columns 2 and 3). These silicone phospholipid polymers are formed by the phosphorylation reaction of a terminal dimethicone copolyol with a phosphorylating agent followed by neutralization of the phosphate with base followed by a condensation reaction with an epihalohydrin followed by conducting a n-alkylation reaction with an amine (columns 5-6). These silicone phospholipid polymers produce non-occlusive films on fiber, have a high degree of oxidative stability even at elevated temperatures and are nonirritating to the skin and eyes. In addition, the compounds are non volatile. It would have been obvious for one with ordinary skill in the art to modify the Jahns slurry by adding silicone phospholipid polymers in order to give the slurry qualities enabling it to remain on fiber after washing and to gain the additional advantages of oxidative stability, non-volatility and lack of irritation to skin and eyes.

Regarding claims 17 and 20, while Jahns and O'Lenick do not expressly claim the relative proportions of ethanol, preservative, silicone polymer and suspending agent

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as claimed by applicant, the proportions of these components are result-effective variables. In *re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) teaches that optimization of a result-effective variable is ordinarily within the skill of one in the art. A result-effective variable is one that has well-known and expected results. The selection of relative amount of ethanol, preservative, silicone polymer and suspending agent are result effective variables. Varying the proportion of either variable has the well-known and expected result of ensuring the effectiveness of the compound while minimizing the amount of the more expensive compounds. Therefore, it would have been obvious to one of ordinary skill in the art to meet the proportion requirements of claimed ethanol, preservative, silicone polymer and suspending agent by modifying Jahns and O'Lenick and selecting the amount in order to use the minimal amount of each needed to ensure its effectiveness.

10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jahns and O'Lenick as applied to claim 13 above, and further in view of Jansson et al (USP 5,104,649). While Jahns teaches using a preservative, Jahns and O'Lenick do not expressly teach using the specific preservative hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine. Jansson teaches using hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine. This biocidal agent is safe, available and relatively low cost (column 4 lines 48-68). It would have been obvious for one with ordinary skill in the art to modify the microcapsule slurry of Jahns and O'Lenick with the preservative hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine in order to gain the benefits of its safety, availability and relatively low cost.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keri A. Moss whose telephone number is 571-272-8267. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Keri A. Moss
Examiner
Art Unit 1743

KAM


Jill Warden
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